

## United States Department of the Interior National Business Center

Alaska Region/Aviation Management

4405 Lear Court Anchorage, Alaska 99502-1032



## OAS OPERATIONAL PROCEDURES MEMORANDUM (OPM) 06-AR-17

Subject: Exception to DOI Aviation Policy to Facilitate Aviation Support to the U.S. FWS

Migratory Bird Program (Turbine Beaver N754)

Effective Date: February 1, 2006

Supersedes: September 8, 2005

Distribution: A and B

Expiration Date: December 31, 2006

- .1 <u>Purpose</u>. This OPM authorizes exception to Departmental Aviation Policy as contained in 350 DM 1.2.
- Authority. This policy is established by the Alaska Regional Director, Aviation Management (AM) in accordance with the authority of 350 DM 1.6 B and the delegation of authority as contained in AM Instruction 100-3 (dated 1-15-03).
- .3 Background.
  - A. Aviation Support to the FWS Migratory Bird Program utilizing Turbine Beaver N754 has been performed for most of the last twenty-three years. Turbine Beaver N754 was custom built at the government's Lake Hood Seaplane Base facility in Anchorage, Alaska. Since the initial construction of this aircraft the airframe and engine has continually received special attention during all inspections that occur at 100-hour intervals. The aircraft was dismantled at Viking Aircraft, the airframe's Type Certificate holder, in the winter of 1998/99 with particular attention given to the entire airframe for signs of metal fatigue. No anomalies were noted with any structural component on the aircraft. The aircraft was reassembled incorporating all available modifications for improving the structural integrity of the Beaver airframe. In 2002 Viking Aircraft performed a wing loading test on a wing modified to resemble N754's modified wings. The test was terminated at nearly two and one-half the certificated load capabilities of an unmodified wing without any noted damage to the tested wing.



- B. During 2004, two inspections were accomplished at the government's Lake Hood Seaplane Base Facility and one at the Viking Aircraft Facility. These inspections did not
  - detect structural deficiencies in the airframe. In December 2004, the engine underwent a hot section inspection in accordance with the manufacture's recommendation.
- C. During 2005, three inspections were accomplished at the government's Lake Hood Seaplane Base Facility and one at the Viking Aircraft Facility. These inspections did not detect structural deficiencies in the airframe. The government will continue inspections at required intervals during the period of this Alaska OPM.

## .4 <u>Exceptions</u>.

351 DM 1.3 requires that all aircraft be certificated. This OPM authorizes the flight of Turbine Beaver N754 as a public aircraft at a maximum gross weight of 6200 pounds within the aircraft's C.G. limitations. When flight is conducted in foreign countries all applicable foreign regulations shall be followed. Passengers are prohibited. This exception shall remain in effect so long as the aircraft is maintained and operated under the currently established programs and restrictions

## .5 <u>Engineering Analysis</u>.

The engineering analysis required by OPM 03-AR-17 was not accomplished. It was determined that the useful life of the aircraft's airframe cannot reasonably be determined for this one-of-a-kind aircraft. Maintenance inspections specific to N754 that conform to 351 DM 2.4D will continue to be accomplished at the government's Lake Hood Seaplane Base Facility and the Viking Aircraft Facility, to determine if this exception will be reissued beyond December 31, 2006.

| Recommend Approval:       | Approved:          |
|---------------------------|--------------------|
| /s/ Harry J. Kieling, Jr. | /s/ Mark Bathrick  |
| Regional Director         | Associate Director |